

1. (Twice amended) A process to manufacture a cellulose fibre having fibre-parallel lamellae with spacing between 1 nm and 5  $\mu$ m from hydrate cellulose, the method comprising the following steps:
  - a) selecting shoots no older than 1 year of deciduous trees or conifers;
  - b) deriving wood pulp from the shoots;
  - c) treating the wood pulp derived from shoots no older than 1 year of deciduous trees or conifers with an alkali metal hydroxide solution to obtain an alkali cellulose;
  - d) pressing out superfluous alkali metal hydroxide solution from the alkali cellulose;
  - e) shredding the alkali cellulose into alkali cellulose crumbs;
  - f) ripening the alkali cellulose crumbs to a maturity of between 5° and 30° Hottenroth to form ripened crumbs;
  - g) treating the ripened crumbs with a wet sulphide process to form sulphadised cellulose;
  - h) rinsing and diluting of the sulphadised cellulose with water to obtain a spinning solution;
  - i) ripening of the spinning solution to a maturity of between 5° and 30° Hottenroth;
  - j) filtering and downstream deaerating the spinning solution;
  - k) injecting the spinning solution into a regenerating bath under application of spinnerets;
  - l) stripping the coagulating fibres off of the spinnerets with simultaneous twisting in order to obtain twisted fibres;
  - m) dehydrating the twisted fibres;
  - n) desulphurising the twisted fibres;
  - o) washing the twisted fibres with water;
  - p) predehydrating the twisted fibres; and

- q) drying the twisted fibres, whereby the fibres have fibre-parallel lamellae with spacing between 1 nm and 5  $\mu\text{m}$ .
4. (Once amended) Process in accordance with Claim 1, characterized in that the alkali metal hydroxide solution used to treat the wood pulp in Step c) is a sodium hydroxide solution which contains between 150 and 350 g/l of sodium hydroxide.
6. (Once amended) Process in accordance with Claim 1, characterized in that treatment of the wood pulp in Step c) is carried out at a temperature ranging between 15°C and 25°C.
7. (Once amended) Process in accordance with Claim 1, characterized in that the shredding process of the alkali cellulose in Step e) comprises a course comminution step and a fine comminution step.
8. (Once amended) Process in accordance with Claim 1, characterized in that the alkali cellulose crumbs in Step f) are ripened at a temperature ranging between 60°C and 75°C.
11. (Once amended) Process in accordance with Claim 1, characterized in that the alkali cellulose crumbs in Step f) are ripened to maturity of between 8° and 12° Hottenroth.
16. (Once amended) Process in accordance with Claim 1, characterized in that subsequent ripening of the cellulose in Step i) is carried out to a maturity of between 8° and 12° Hottenroth.

17. (Once amended) Process in accordance with Claim 1, characterized in that the spinning solution downstream of the subsequent ripening of the cellulose and upstream of the filtration of the spinning solution is mixed with at least one other spinning solution produced using a process which comprises Steps a) to i) as described in claim 1.
18. (Once amended) Process in accordance with Claim 1, characterized in that the temperature of the regenerating bath in Step k) is between 35°C and 45°C.
20. (Twice Amended) Process in accordance with Claim 1, characterized in that the regenerating bath in Step k) contains between 70 and 160 g/l of sulphuric acid.
21. (Twice Amended) Process in accordance with Claim 1, characterized in that the regenerating bath in Step k) contains between 0.3 and 4 g/l of zinc sulphate.
22. (Twice Amended) Process in accordance with Claim 1, characterized in that the regenerating bath in Step k) contains between 0.5 and 1 g/l of BEROL.
23. (Once amended) Process in accordance with Claim 1, characterized in that the spinnerets in Step k) are heated to keep them at a temperature of between 55°C and 75°C.
25. (Once amended) Process in accordance with Claim 1, characterized in that the spinnerets in Step k) are oval to long-slit-shaped.

26. (Once amended) Process in accordance with Claim 1, characterized in that dehydrating of the fibres in Step m) is carried out with a sulphuric acid solution which contains up to 15 g/l of sulphuric acid.
28. (Once amended) Process in accordance with Claim 1, characterized in that desulphurisation of the fibres in Step n) is carried out with a sodium sulphate solution which contains between 2 and 5 g/l of sodium sulphate.
31. (Once amended) Process in accordance with Claim 1, characterized in that the prehydrating of the fibres in Step p) is carried out with compressed air.
32. (Once amended) Process in accordance with Claim 1, characterized in that the drying of the fibres in Step q) is carried out under application of tunnel dryers.
33. (Twice Amended) Cellulose fibre, produced by a process in accordance with Claim 1.
43. (Twice Amended) Fabric comprising a backing fabric and a pile woven into the backing fabric, wherein the pile is comprised of cellulose fibers formed by:
  - a) treating wood pulp derived from shoots no older than 1 year of deciduous trees or conifers with an alkali metal hydroxide solution in order to obtain an alkali cellulose;
  - b) pressing out the superfluous alkali metal hydroxide solution from the obtained alkali cellulose;
  - c) shredding the alkali cellulose into crumbs;
  - d) ripening the alkali cellulose crumbs to a maturity of between 5° and 30° Hottenroth;

- e) employing a wet sulfide process to treat the ripened crumbs in order to sulfadize the cellulose;
- f) rinsing and diluting the sulfadized cellulose with water in order to obtain a spinning solution;
- g) subsequently ripening the rinsed and diluted cellulose to a maturity of between 5° and 30° Hottenroth;
- h) filtering and deaerating the spinning solution;
- i) injecting the spinning solution into a regenerating bath under application of spinnerets;
- j) stripping off the coagulating fibers with simultaneous twisting in order to obtain twisted fibers;
- k) dehydrating the twisted fibers;
- l) desulfurizing the twisted fibers;
- m) washing the twisted fibers with water;
- n) predehydrating the twisted fibers; and
- o) drying the twisted fibers;

the fabric characterised in that the pile consists of 50% oval fibers and 50% tape fibers.

44. (Twice Amended) Fabric comprising a backing fabric and a pile woven into the backing fabric, wherein the pile is comprised of cellulose fibers formed by:

- a) treating wood pulp derived from shoots no older than 1 year of deciduous trees or conifers with an alkali metal hydroxide solution in order to obtain an alkali cellulose;
- b) pressing out the superfluous alkali metal hydroxide solution from the obtained alkali cellulose;
- c) shredding the alkali cellulose into crumbs;
- d) ripening the alkali cellulose crumbs to a maturity of between 5° and 30° Hottenroth;

- e) employing a wet sulfide process to treat the ripened crumbs in order to sulfadize the cellulose;
- f) rinsing and diluting the sulfadized cellulose with water in order to obtain a spinning solution;
- g) subsequently ripening the rinsed and diluted cellulose to a maturity of between 5° and 30° Hottenroth;
- h) filtering and deaerating the spinning solution;
- i) injecting the spinning solution into a regenerating bath under application of spinnerets;
- j) stripping off the coagulating fibers with simultaneous twisting in order to obtain twisted fibers;
- k) dehydrating the twisted fibers;
- l) desulfurizing the twisted fibers;
- m) washing the twisted fibers with water;
- n) predehydrating the twisted fibers; and
- o) drying the twisted fibers;

the fabric characterized in that the pile consists of 50% of oval fibers with a count of 330 dtex F60 and 50% of tape fibers with a count of 300 dtex F80.

- 56. (Once amended) Process in accordance with Claim 1, characterized in that the regenerating bath in Step k) contains between 90 and 140 g/l of sulphuric acid.
- 57. (Once amended) Process in accordance with Claim 1, characterized in that the regenerating bath in Step k) contains approximately 120 g/l of sulphuric acid.